

Notice of Allowability

Application No.

09/746,344

Examiner

Chester T. Barry

Applicant(s)

ZHU ET AL.

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1724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 10/31/03.
2. ☒ The allowed claim(s) is/are 22-31.
3. ☒ The drawings filed on 22 December 2000 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- * Certified copies not received: _____.
5. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
 - (a) ☐ The translation of the foreign language provisional application has been received.
6. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE**

7. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No. _____.
 - (b) ☐ including changes required by the proposed drawing correction filed _____, which has been approved by the Examiner.
 - (c) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the margin according to 37 CFR 1.121(d).

9. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| 1 <input type="checkbox"/> Notice of References Cited (PTO-892) | 5 <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2 <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6 <input type="checkbox"/> Interview Summary (PTO-413), Paper No. _____ |
| 3 <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No. _____ | 7 <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4 <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8 <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9 <input type="checkbox"/> Other |

Chester T. Barry
571-272-1152 direct
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An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

The application has been amended as follows:

IN THE CLAIMS

Claims 1 – 21, directed to the invention not elected without traverse, are cancelled.

The following is an examiner's statement of reasons for allowance:

All claims allowed now, in addition to being a device having a container with an inlet and an outlet and a source of solid primary amine enclosed within the container, are limited to such devices in which the solid primary amine is immobilized within the container, and is engaged in the act of neutralizing and removing an aldehyde compound from a waste stream containing the aldehyde compound. Devices comprising a container with an inlet and an outlet and a source of solid primary amine enclosed within the container are not encompassed by, i.e., not protected by, the claimed invention if:

- 1) the solid primary amine is not in physical contact with an aldehyde compound and a waste stream containing the same;

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- 2) the solid primary amine is engaged in neutralizing an aldehyde contained within a waste stream but is not engaged in removing the same aldehyde from the same waste stream;
- 3) the solid primary amine is engaged in removing an aldehyde from a waste stream but is not engaged in neutralizing the same aldehyde from the same waste stream; or
- 4) the solid primary amide is not "immobilized" within the container.

The foregoing construction was arrived at given appellant's arguments of record.

Among these arguments were:

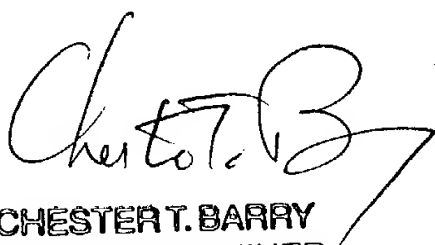
1. "the presence and removal of an aldehyde from a waste stream is part of the body of [device] claim 22" (Brief, page 6; repeated at page 7);
2. "Appellant's [device] invention binds the aldehydes present in waste thus **preventing passage** of the aldehyde in the effluent" (Brief page 7; emphasis added)
3. In distinguishing claim 22 over Chen, appellant stated that "[i]n the present invention . . . [t]he solid primary amine is immobilized in the container" (Brief, pages 8 – 9).

Per argument 1, the aldehyde in a waste stream is a positively recited element of the device claim. A device lacking a waste stream or an aldehyde in an influent waste stream lacks a positively recited element of the claim. A container with an inlet, outlet, and solid primary amine merely capable of neutralizing and removing aldehyde from a waste stream which container is not in actual contact with the aldehyde and waste

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stream is therefore, not within the scope of the claimed invention. Per argument 2, an accused device comprising the container, inlet, outlet, solid primary amine, aldehyde, and waste stream does not literally infringe the claimed invention if the solid primary amine is not engaged in the act of "binding" the aldehyde so as to prevent passage of aldehyde from the device. Accordingly, the device must prevent passage of any aldehyde from the container, and not simply remove a portion of the influent aldehyde. Per argument 3, the solid primary amine must be prevented from moving within the container for that the skilled artisan would have understood "immobilized" to mean in this art. Accordingly, a packed bed of supported or unsupported solid primary amine is covered, for example, but not a fluidized bed of unsupported solid primary amine particles.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."


CHESTERT. BARRY
PRIMARY EXAMINER

1/27/04

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